AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A ~~reciprocating compressor~~refrigerating system comprising:

an evaporator for performing a cooling operation as a refrigerant is evaporated;

a reciprocating compressor which includes a driving unit having a stator ~~consisting of~~including an outer stator fixed inside a hermetic container, an inner stator disposed with a certain air gap with an inner circumferential surface of the outer stator, and a winding coil wound at one of the outer stator and the inner stator, to which power is applied from an external source, a mover ~~consisting of~~including magnets disposed at regular intervals between the outer stator and the inner stator and linearly and reciprocally moved when power is applied to the winding coil and a magnet frame, in which the magnets are mounted, for transmitting a linear reciprocal motional force to a compression unit, a compression unit for performing a compressing operation on a refrigerant upon receiving the linear reciprocal motional force of the driving unit, and a lubrication unit for ~~supplying the lubricant, a sort of a mineral oil, to each motional portion of the driving unit and the compression unit and~~ performing a lubricating operation;

a condenser for changing the refrigerant compressed in the reciprocating compressor to a liquid refrigerant;

a capillary tube for decompressing the refrigerant discharged from the condenser and transmitting it to the evaporator;

an organic compound refrigerant sucked into the evaporator and comprising carbon and hydrogen, a sort of natural refrigerant, and having combustibility and explosiveness; and

a mineral-based lubricant stored inside a hermetic container of the reciprocating compressor and performing a lubricating operation on each sliding part and supplied by the lubrication unit to each motional portion of the driving unit and the compression unit,

wherein the mineral-based lubricant has a density of 0.866~0.880 g/cm^3 and a flash point of above 140 °C such that the mineral-based lubricant mixes with the organic compound refrigerant to perform the lubricating operation.

2. (Original) The refrigerating system of claim 1 further comprising:

a controller for varying a capacity of the compressor according to an ambient temperature and environment.

3. (Original) The refrigerating system of claim 2, wherein the controller determines an output value according to a phase difference between a current and a voltage.

4. (Currently Amended) The refrigerating system of claim 1, wherein the compression unit comprises:

a piston connected to the mover and linearly and reciprocally moved;

a cylinder into which the piston is slidably inserted to form a certain compression chamber;

a suction valve mounted at a refrigerant passage ~~56~~ formed at the piston and preventing a backflow of the refrigerant after being introduced into the compression chamber; and

a discharge valve mounted at the front side of the cylinder and performing an opening and closing operation on a compressed refrigerant.

5. (Original) The refrigerating system of claim 1, wherein the lubrication unit comprises:

a lubricant pumping unit for pumping a lubricant filled with a certain amount at a lower portion of the hermetic container; and

a lubricant supply passage for supplying the lubricant pumped by the lubricant pumping unit to a frictional portion between the piston and the cylinder.

6. (Original) The refrigerating system of claim 1, wherein isobutane (R600a) which is hydrocarbon-based and has a molecular formula of $CH(CH_3)_3$ is used as the refrigerant.

7. (Original) The refrigerating system of claim 1, wherein the lubricant is a paraffin-based lubricant.

8. (Canceled)

9. (Original) The refrigerating system of claim 1, wherein the lubricant has a kinematic viscosity of 7.2~21.8 mm^2/s at a temperature of 40 °C and a viscosity index of 73~99.

10. (Original) The refrigerating system of claim 1, wherein the lubricant has a flow point of below -25 °C and a total acid number of below 0.01 mgKOH/g.

11. (Original) The refrigerating system of claim 1, wherein the lubricant has a water content of below 20 ppm and a breakdown voltage of above 30 kV.

12. (New) A refrigerating system comprising:

an evaporator for performing a cooling operation as a refrigerant is evaporated;

a reciprocating compressor which includes a driving unit having a stator including an outer stator fixed inside a hermetic container, an inner stator disposed with a certain air gap with an inner circumferential surface of the outer stator, and a winding coil wound at one of the outer stator and the inner stator, to which power is applied from an external source, a mover including magnets disposed at regular intervals between the outer stator and the inner stator and linearly and reciprocally moved when power is applied to the winding coil and a magnet frame, in which the magnets are mounted, for transmitting a linear reciprocal motional force to a compression unit, a compression unit for performing a compressing operation on a refrigerant upon receiving the linear reciprocal motional force of the driving unit, and a lubrication unit for performing a lubricating operation;

a condenser for changing the refrigerant compressed in the reciprocating compressor to a liquid refrigerant;

a capillary tube for decompressing the refrigerant discharged from the condenser and transmitting it to the evaporator;

an organic compound refrigerant sucked into the evaporator and comprising carbon and hydrogen, a sort of natural refrigerant, and having combustibility and explosiveness; and

a mineral-based lubricant stored inside a hermetic container of the reciprocating compressor and performing a lubricating operation on each sliding part and supplied by the lubrication unit to each motional portion of the driving unit and the compression unit,

wherein the lubricant has a kinematic viscosity of 7.2~21.8 mm^2/s at a temperature of 40 °C and a viscosity index of 73~99 such that the mineral-based lubricant mixes with the organic compound refrigerant to perform the lubricating operation.

13. (New) The refrigerating system of claim 12, wherein the lubricant is a paraffin-based lubricant.

14. (New) The refrigerating system of claim 12, wherein the lubricant has a density of 0.866~0.880 g/cm^3 and a flash point of above 140 °C.

15. (New) The refrigerating system of claim 12, wherein the lubricant has a flow point of below -25 °C and a total acid number of below 0.01 mgKOH/g.

16. (New) The refrigerating system of claim 12, wherein the lubricant has a water content of below 20 ppm and a breakdown voltage of above 30 kV.